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- 3. A group III nitride wafer according to claim 1, wherein the mechanical process is grinding of the wafer.
- **4.** A group III nitride wafer according to claim **2**, wherein the wafer was sliced from a bulk crystal of group III nitride with a multiple wire saw.
- 5. A group III nitride wafer according to claim 1, wherein the chemical treatment is etching.
- **6**. A group III nitride wafer according to claim **5**, wherein the etching is performed using a wet etchant.
- 7. A group III nitride wafer according to claim 6, wherein 10 the wet etchant comprises phosphoric acid.
- **8**. A group III nitride wafer according to claim **7**, wherein the chemical treatment is etching in phosphoric acid or its mixture at 50° C. or higher.
- **9**. A group III nitride wafer according to claim **1**, wherein 15 the wafer has c-plane orientation with misorientation from minus 10 degree to plus 10 degree.
- 10. A group III nitride wafer according to claim 1, wherein the wafer has a semipolar plane orientation with misorientation from minus 10 degree to plus 10 degree.
- 11. A group III nitride wafer according to claim 1, wherein the wafer has a nonpolar plane orientation with misorientation from minus 10 degree to minus 0.1 degree or plus 0.1 degree to plus 10 degree.
- 12. A group III nitride wafer according to claim 1, wherein 25 the wafer has a surface area greater than 100 mm².
- 13. A group III nitride wafer according to claim 1, wherein the composition comprises GaN.
- 14. A group III nitride wafer comprising a first layer and a second layer of damaged group III nitride on opposite

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faces of a third layer of highly oriented poly or single crystalline group III nitride, wherein the first and the second layer were formed through a mechanical process that precedes chemically-mechanically polishing the wafer, and the surface of the second layer is made visually distinguishable, without instrumentation, from the surface of the first layer by a chemical etching.

- 15. A group III nitride wafer according to claim 14, wherein the wafer is sliced from a bulk crystal of group III nitride.
- **16**. A group III nitride wafer according to claim **14**, wherein the wafer is sliced from a bulk crystal of group III nitride with a multiple wire saw.
- 17. A group III nitride wafer according to claim 14, wherein the chemical etching uses acid or base.
- **18**. A group III nitride wafer according to claim **17**, wherein the chemical etching uses phosphoric acid or its mixture.
- **19**. A group III nitride wafer according to claim **18**, wherein the chemical etching uses phosphoric acid or its mixture at 50° C. or higher.
- 20. A group III nitride wafer according to claim 14, wherein the surface area of the wafer is more than 100 mm².
- 21. A group III nitride wafer according to claim 14, wherein the third layer has a density of line defect and grain boundary less than 10⁶ cm⁻².
 - **22**. A group III nitride wafer according to claim **14**, wherein the group III nitride comprises GaN.

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